



SEQUENCE LISTING

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BELLOCCHIO, ELIZABETH
FREMEAUX, ROBERT
REIMER, RICHARD

<120> NOVEL GLUTAMATE TRANSPORTERS

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<140> US 09/915,181
<141> 2001-07-24

<150> US 60/220,556
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TECH CENTER 1600/2900

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Glu Asp Asn Leu Cys Asn Leu Met Lys Gly Ile Thr His Gly Gly Pro
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Val Thr Ser Lys Pro Val Trp Ala Ile Ile Val Ala Asn Phe Ala Arg
 290 295 300
 Ser Trp Thr Phe Tyr Leu Leu Leu Gln Asn Gln Leu Thr Tyr Met Lys
 305 310 315 320
 Glu Ala Leu Gly Met Lys Ile Ala Asp Ser Gly Leu Leu Ala Ala Ile
 325 330 335
 Pro His Leu Val Met Gly Cys Val Val Leu Met Gly Gly Gln Leu Ala
 340 345 350
 Asp Tyr Leu Arg Ser Asn Lys Ile Leu Ser Thr Thr Ala Val Arg Lys
 355 360 365
 Ile Phe Asn Cys Gly Gly Phe Gly Gly Glu Ala Ala Phe Met Leu Ile
 370 375 380
 Val Ala Tyr Thr Ser Asp Thr Thr Ala Ile Met Ala Leu Ile Ala
 385 390 395 400
 Ala Val Gly Met Ser Gly Phe Ala Ile Ser Gly Phe Asn Val Asn His
 405 410 415
 Leu Asp Ile Ala Pro Arg Tyr Ala Ala Ile Leu Met Gly Phe Ser Asn
 420 425 430
 Gly Ile Gly Thr Leu Ala Gly Leu Thr Cys Pro Phe Val Thr Glu Ala
 435 440 445
 Phe Thr Ala His Ser Lys His Gly Trp Thr Ser Val Phe Leu Leu Ala
 450 455 460
 Ser Leu Ile His Phe Thr Gly Val Thr Phe Tyr Ala Val Tyr Ala Ser
 465 470 475 480
 Gly Glu Leu Gln Glu Trp Ala Glu Pro Lys Glu Glu Glu Trp Ser
 485 490 495
 Asn Lys Glu Leu Val Asn Lys Thr Gly Ile Asn Gly Thr Gly Tyr Gly
 500 505 510
 Ala Ala Glu Thr Thr Phe Thr Gln Leu Pro Ala Gly Val Asp Ser Ser
 515 520 525
 Tyr Gln Ala Gln Ala Ala Pro Ala Pro Gly Thr Asn Pro Phe Ala Ser
 530 535 540

Ala Trp Asp Glu His Gly Ser Ser Gly Val Val Glu Asn Pro His Tyr
 545 550 555 560

Gln Gln Trp

<210> 7
 <211> 495
 <212> PRT
 <213> Homo sapiens

<400> 7

Met Arg Ser Pro Val Arg Asp Leu Ala Arg Asn Asp Gly Glu Glu Ser
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Thr Asp Arg Thr Pro Leu Leu Pro Gly Ala Pro Arg Ala Glu Ala Ala
 20 25 30

Pro Val Cys Cys Ser Ala Arg Tyr Asn Leu Ala Ile Leu Ala Phe Phe
 35 40 45

Gly Phe Phe Ile Val Tyr Ala Leu Arg Val Asn Leu Ser Val Ala Leu
 50 55 60

Val Asp Met Val Asp Ser Asn Thr Thr Leu Glu Asp Asn Arg Thr Ser
 65 70 75 80

Lys Ala Cys Pro Glu His Ser Ala Pro Ile Lys Val His His Asn Gln
 85 90 95

Thr Gly Lys Lys Tyr Gln Trp Asp Ala Glu Thr Gln Gly Trp Ile Leu
 100 105 110

Gly Ser Phe Phe Tyr Gly Tyr Ile Ile Thr Gln Ile Pro Gly Gly Tyr
 115 120 125

Val Ala Ser Lys Ile Gly Gly Lys Met Leu Leu Gly Phe Gly Ile Leu
 130 135 140

Gly Thr Ala Val Leu Thr Leu Phe Thr Pro Ile Ala Ala Asp Leu Gly
 145 150 155 160

Val Gly Pro Leu Ile Val Leu Arg Ala Leu Glu Gly Leu Gly Glu Gly
 165 170 175

Val Thr Phe Pro Ala Met His Ala Met Trp Ser Ser Trp Ala Pro Pro

180	185	190
Leu Glu Arg Ser Lys Leu Leu Ser Ile Ser Tyr Ala Gly Ala Gln Leu		
195	200	205
Gly Thr Val Ile Ser Leu Pro Leu Ser Gly Ile Ile Cys Tyr Tyr Met		
210	215	220
Asn Trp Thr Tyr Val Phe Tyr Phe Phe Gly Thr Ile Gly Ile Phe Trp		
225	230	235
Phe Leu Leu Trp Ile Trp Leu Val Ser Asp Thr Pro Gln Lys His Lys		
245	250	255
Arg Ile Ser His Tyr Glu Lys Glu Tyr Ile Leu Ser Ser Leu Arg Asn		
260	265	270
Gln Leu Ser Ser Gln Lys Ser Val Pro Trp Val Pro Ile Leu Lys Ser		
275	280	285
Leu Pro Leu Trp Ala Ile Val Val Ala His Phe Ser Tyr Asn Trp Thr		
290	295	300
Phe Tyr Thr Leu Leu Thr Leu Leu Pro Thr Tyr Met Lys Glu Ile Leu		
305	310	315
Arg Phe Asn Val Gln Glu Asn Gly Phe Leu Ser Ser Leu Pro Tyr Leu		
325	330	335
Gly Ser Trp Leu Cys Met Ile Leu Ser Gly Gln Ala Ala Asp Asn Leu		
340	345	350
Arg Ala Lys Trp Asn Phe Ser Thr Leu Cys Val Arg Arg Ile Phe Ser		
355	360	365
Leu Ile Gly Met Ile Gly Pro Ala Val Phe Leu Val Ala Ala Gly Phe		
370	375	380
Ile Gly Cys Asp Tyr Ser Leu Ala Val Ala Phe Leu Thr Ile Ser Thr		
385	390	395
Thr Leu Gly Gly Phe Cys Ser Ser Gly Phe Ser Ile Asn His Leu Asp		
405	410	415
Ile Ala Pro Ser Tyr Ala Gly Ile Leu Leu Gly Ile Thr Asn Thr Phe		
420	425	430
Ala Thr Ile Pro Gly Met Val Gly Pro Val Ile Ala Lys Ser Leu Thr		

435	440	445
Pro Asp Asn Thr Val Gly Glu Trp Gln Thr Val Phe Tyr Ile Ala Ala		
450	455	460
Ala Ile Asn Val Phe Gly Ala Ile Phe Phe Thr Leu Phe Ala Lys Gly		
465	470	475
Glu Val Gln Asn Trp Ala Leu Asn Asp His His Gly His Arg His		
485	490	495
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<213> Rattus norvegicus		
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Arg Tyr Gly Leu Ala Ile Leu Leu His Phe Cys Asn Ile Val Ile Met		
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Ala Gln Arg Val Cys Leu Asn Leu Thr Met Val Ala Met Val Asn Lys		
35	40	45
Thr Glu Pro Pro His Leu Ser Asn Lys Ser Val Ala Glu Met Leu Asp		
50	55	60
Asn Val Lys Asn Pro Val His Ser Trp Ser Leu Asp Ile Gln Gly Leu		
65	70	75
Val Leu Ser Ser Val Phe Leu Gly Met Val Val Ile Gln Val Pro Val		
85	90	95
Gly Tyr Leu Ser Gly Ala Tyr Pro Met Glu Lys Ile Ile Gly Ser Ser		
100	105	110
Leu Phe Leu Ser Ser Val Leu Ser Leu Leu Ile Pro Pro Ala Ala Gln		
115	120	125
Val Gly Ala Ala Leu Val Ile Val Cys Arg Val Leu Gln Gly Ile Ala		
130	135	140
Gln Gly Ala Val Ser Thr Gly Gln His Gly Ile Trp Val Lys Trp Ala		
145	150	155
		160

Pro	Pro	Leu	Glu	Arg	Gly	Arg	Leu	Thr	Ser	Met	Thr	Leu	Ser	Gly	Phe
															165
															170
															175
Val	Met	Gly	Pro	Phe	Ile	Ala	Leu	Leu	Val	Ser	Gly	Phe	Ile	Cys	Asp
															180
															185
															190
Leu	Leu	Gly	Trp	Pro	Met	Val	Phe	Tyr	Ile	Phe	Gly	Ile	Val	Gly	Cys
															195
															200
															205
Val	Leu	Ser	Leu	Phe	Trp	Phe	Ile	Leu	Leu	Phe	Asp	Asp	Pro	Asn	Asn
															210
															215
															220
His	Pro	Tyr	Met	Ser	Ser	Ser	Glu	Lys	Asp	Tyr	Ile	Thr	Ser	Ser	Leu
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															230
															235
Met	Gln	Gln	Val	His	Ser	Gly	Arg	Gln	Ser	Leu	Pro	Ile	Lys	Ala	Met
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															250
															255
Leu	Lys	Ser	Leu	Pro	Leu	Trp	Ala	Ile	Ile	Leu	Asn	Ser	Phe	Ala	Phe
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															265
															270
Ile	Trp	Ser	Asn	Asn	Leu	Leu	Val	Thr	Tyr	Thr	Pro	Thr	Phe	Ile	Ser
															275
															280
															285
Thr	Thr	Leu	His	Val	Asn	Val	Arg	Glu	Asn	Gly	Leu	Leu	Ser	Ser	Leu
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															295
															300
Pro	Tyr	Leu	Leu	Ala	Tyr	Ile	Cys	Gly	Ile	Val	Ala	Gly	Gln	Met	Ser
															305
															310
															315
															320
Asp	Phe	Leu	Leu	Ser	Arg	Lys	Ile	Phe	Ser	Val	Val	Ala	Val	Arg	Lys
															325
															330
															335
Leu	Phe	Thr	Thr	Leu	Gly	Ile	Phe	Cys	Pro	Val	Ile	Phe	Val	Val	Cys
															340
															345
															350
Leu	Leu	Tyr	Leu	Ser	Tyr	Asn	Phe	Tyr	Ser	Thr	Val	Ile	Phe	Leu	Thr
															355
															360
															365
Leu	Ala	Asn	Ser	Thr	Leu	Ser	Phe	Ser	Phe	Cys	Gly	Gln	Leu	Ile	Asn
															370
															375
															380
Ala	Leu	Asp	Ile	Ala	Pro	Arg	Tyr	Tyr	Gly	Phe	Leu	Lys	Ala	Val	Thr
															385
															390
															395
															400
Ala	Leu	Ile	Gly	Ile	Phe	Gly	Gly	Leu	Ile	Ser	Ser	Thr	Leu	Ala	Gly
															405
															410
															415

Leu Ile Leu Asn Gln Asp Pro Glu Tyr Ala Trp His Lys Asn Phe Phe
420 425 430

Leu Met Ala Gly Ile Asn Val Thr Cys Leu Ala Phe Tyr Leu Leu Phe
435 440 445

Ala Lys Gly Asp Ile Gln Asp Trp Ala Lys Glu Thr Lys Thr Thr Arg
450 455 460

Leu
465

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<223> n is a, g, c, or u

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14

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<211> 32
<212> DNA
<213> Artificial

<220>
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gggaattcat tcatgaagat gaactggatg aa
32

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<213> Artificial

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ggctcgagct agcttcgtta tgaataatca tc
32